

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1. (canceled)
2. (canceled)
3. (previously presented) An isolated DNA encoding the protein of claim 35.
4. (previously presented) The DNA of claim 3 comprising the coding region of the nucleotide sequence of SEQ ID NO: 1.
5. (previously presented) A vector into which the DNA of claim 3 is inserted.
6. (previously presented) A host cell transformed with the vector of claim 5.
7. (currently amended) A method for producing a protein, wherein said method comprises the steps of culturing a host cell containing the DNA of claim 3 to express a recombinant protein encoded by the DNA, and collecting from the cell or its culture supernatant a the recombinant protein expressed from the DNA within the cell.
8. (canceled)
9. (currently amended) A peptide fragment of the protein of claim 32, wherein the peptide fragment comprises, as the C-terminal 14 amino acids, ~~having the amino acid sequence of~~ SEQ ID NO: 9.
10. (canceled)

11. (currently amended) A method for screening a compound that binds to the protein of claim 35, comprising the steps of:

(a) contacting a test sample with the protein or a peptide fragment thereof comprising, as the C-terminal 14 amino acids, ~~having the amino acid sequence of~~ SEQ ID NO: 9,

(b) detecting the binding activity between the test sample and the protein or the peptide fragment thereof, and

(c) selecting a compound that has an activity to bind to the protein or the peptide fragment thereof.

12. (canceled)

13. (canceled)

14. (canceled)

15. (canceled)

16. (previously presented) An isolated polynucleotide encoding the peptide fragment of Claim 9.

17. (canceled)

18. (previously presented) An A $\beta$  production regulator, comprising the protein of claim 35 as an active ingredient.

19. (currently amended) A ~~drug~~ pharmaceutical preparation for treating a disease that causes accumulation of A $\beta$  in the brain, wherein said ~~drug~~ preparation comprises the protein of claim 35 as an active ingredient.

20. (currently amended) The ~~drug~~ pharmaceutical preparation of claim 19, wherein said disease that causes accumulation of A $\beta$  in the brain is selected from the group

consisting of senile dementia, Alzheimer's disease, Down's syndrome, hereditary cerebral hemorrhage, and cephalic contusion.

21. (canceled)

22. (canceled)

23. (canceled)

24. (previously presented) A kit for screening a compound that promotes or inhibits peptidase activity of the protein of claim 35, wherein said kit comprises the protein of claim 35.

25. (previously presented) The kit of claim 24, further comprising a substrate of the protein of claim 35.

26. (currently amended) The kit of claim 25, wherein said substrate is brain  $\beta$ -amyloid precursor proteinAPP.

27. (canceled)

28. (canceled)

29. (canceled)

30. (canceled)

31. (canceled)

32. (currently amended) The protein of claim 35, wherein said protein comprises, as the C-terminal 14 amino acids, of SEQ ID NO: 9.

33. (canceled)

34. (previously presented) The partial peptide of claim 9, wherein said partial peptide consists of the amino acid sequence of SEQ ID NO: 9.

35. (previously presented) An isolated protein having peptidase activity towards brain APP, wherein said protein comprises an amino acid sequence of any one of SEQ ID NOS: 2 to 4 or a variant of any of SEQ ID NOS: 2 to 4 in which no more than 30 amino acids are replaced, deleted, inserted, and/or added.

36. (previously presented) The protein of claim 35 comprising the amino acid sequence of any one of SEQ ID NOS: 2 to 4.

37. (currently amended) An isolated peptide ~~comprising~~ consisting of a peptide motif at least 7 amino acids of SEQ ID NO: 9, wherein, within said motif, at least 7 amino acids of SEQ ID NO: 9 are conserved.

38. (currently amended) An isolated peptide variant of SEQ ID NO: 9 consisting of an epitope of human brain carboxypeptidase B, wherein in which no more than 5 amino acids of SEQ ID NO: 9 are replaced, ~~deleted~~ inserted and/or added, wherein the peptide variant binds to an antibody to a protein having an amino acid sequence of SEQ ID NO: 2.

39. (new) A method for screening a compound that binds to the protein of claim 35, comprising the steps of:

- (a) contacting a test sample with a peptide consisting of a peptide motif of SEQ ID NO: 9, wherein within said motif at least 7 amino acids of SEQ ID NO: 9 are conserved;
- (b) detecting the binding activity between the test sample and the peptide; and
- (c) selecting a compound that has an activity to bind to the peptide.

40. (new) A method for screening a compound that binds to the protein of claim 35, comprising the steps of:

(a) contacting a test sample with a peptide variant of SEQ ID NO: 9 consisting of an epitope of human brain carboxypeptidase B, wherein no more than 5 amino acids of SEQ ID NO: 9 are replaced, deleted, inserted and/or added, wherein the peptide variant binds to an antibody to a protein having an amino acid sequence of SEQ ID NO:2;

(b) detecting the binding activity between the test sample and the peptide variant;  
and

(c) selecting a compound that has an activity to bind to the peptide variant.

41. (new) An isolated peptide fragment of the protein of claim 35, wherein the peptide fragment comprises a C-terminal region in which at least 7 amino acids of SEQ ID NO: 9 are conserved.

42. (new) An isolated peptide fragment of SEQ ID NO: 9, wherein the peptide fragment binds to an antibody to a protein having an amino acid sequence of SEQ ID NO: 2.

43. (new) A method for screening a compound that binds to the protein of claim 35, comprising the steps of:

(a) contacting a test sample with an isolated peptide fragment of the protein of claim 35, wherein the peptide fragment comprises a C-terminal region in which at least 7 amino acids of SEQ ID NO: 9 are conserved;

(b) detecting the binding activity between the test sample and the peptide variant;  
and

(c) selecting a compound that has an activity to bind to the peptide variant.

44. (new) A method for screening a compound that binds to the protein of claim 35, comprising the steps of:

(a) contacting a test sample with an isolated peptide fragment of SEQ ID NO: 9, wherein the peptide fragment binds to an antibody to a protein having an amino acid sequence of SEQ ID NO: 2;

- (b) detecting the binding activity between the test sample and the peptide variant;
- and
- (c) selecting a compound that has an activity to bind to the peptide variant.